UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/883,346	06/19/2001	Wen-Yi Kuo	105494	9643

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EXAMINER
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ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 08/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/883,346	KUO, WEN-YI
	Examiner	Art Unit	
	Dmitry Levitan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,9-13,15,16 and 18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 9-13, 15, 16 and 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Amendment, filed 06/14/06, has been entered. Claims 1-6, 9-13, 15, 16 and 18 remain pending.

Claim Rejections - 35 USC § 112

1.   Claims 2, 9 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the enablement requirement. The claim(s) contains subject matter, which was not described

in the specification in such a way as to enable one skilled in the art to which it pertains, or with

which it is most nearly connected, to make and/or use the invention.

The specification does not provide sufficient details to enable a skilled in the art to make and use

the invention because it does not adequately describe the following:

Claim 2 limitations, directed to resetting the power level to said first power level.

Contrary to this limitation, Fig. 7 of the current Application and the text on page 2 of the current

amendment, require adjusting the power under the condition of claim 2. Examiner believes that

the system according to the claim 2 will never reduce the power in its operation below the initial

value, create a dramatic drop of the power when a sequence of failed transmissions is followed

by a successful transmission and contradicts the operation of the disclosed system.

The specification does not provide enough details about the structure and operation of the

elements associated with the above identified claimed features to enable one skilled in the art to

make and use the invention without undue experimentation.

Claims 9 and 10 are rejected as the claims depending on rejected claim 2.

Claim Rejections - 35 USC § 103

2.   Claims 1, 2, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Vanghi (US 6,711,150 in view of Malkamaki (US 5,563,895).

Regarding claims 1, 2, 11 and 13, Vanghi substantially teaches the limitations of claims 1, 2, 11

and 13, as a method and an apparatus for transmitting signal frames (1:30-40), comprising:

Generating a frames block i that includes k of said incoming signal frames, where i is an

integer index (transmitting inherently generated data burst, comprising n frames, as shown on

Fig. 2 and 5:26-44),

Transmitting frame blocks i with a first power level (the power level defined by the

targeted FER, wherein the power control is set to achieve the target FER 4:56-5:5),

Determining whether said step of transmission failed to correctly transmit j signal frames

of said block I (identifying if the frames 1 and 2 from n frames of the burst of Fig. 2 were

received correctly 5:44-50),

When said step of determining concludes in affirmative (frames 1 and 3-n are not

received correctly 5:46-49),

Retransmitting the failed frames j with a power level that is higher than the power level

employed in the previous step of transmitting (retransmitting incorrectly received frames 1 and

3-n 5:52-55, wherein the power of the transmission is increased by of the outer loop power

control based on the received frame quality 5:63-6:39),

Incrementing i and returning to the determining step (inherently repeating the process to

transmit all the bursts of the signal transmission 1:12-30).

When the determining step concludes in negative (frame 2 is received correctly 5:45-50),

Adjusting the power level, incrementing i and returning to the generating step (decreasing

the power of the transmission by of the outer loop power control based on the received frame

quality 5:63-6:39).

Vanghi does not teach generating a frame block combining the j incorrectly transmitted

frames with subsequent incoming signal frames.

Malkamaki teaches generating a frame block combining the j incorrectly transmitted

frames with subsequent incoming signal frames (combining new information and information for

retransmission in one block, as shown on Fig. 4 and 8:39-46).

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add generating a frame block combining the j incorrectly transmitted frames with

subsequent incoming signal frames of Malkamaki to the system of Vanghi to improve

transmission speed of the system, as combining new and failed frames in one block will reduce

the system delay by reducing overhead in transmission and acknowledgement of these frames.

In addition, regarding claims 11 and 13, Vanghi also teaches changing targeted FER

requirements for different power transmit levels 5:63-6:20.

In addition, regarding claim 13, Vanghi teaches a wireless transmitter, shown on Fig. 1

and a monitor, inherently part of the transmitter on Fig. 1, because the monitor operates as

disclosed above in the rejection of claim 1 and Malkamaki teaches a reformatting circuit,

inherently portion of transceiver on Fig. 5 and 8:47-9:10, because it is essential for performing

the reformatting circuit function as disclosed above in the rejection of claim 1.

3.   Regarding claims 3 and 6, Vanghi teaches the system as a CDMA network (Title and 1:5-

30) and the incoming signal frames are portions of the signals of the CDMA network.

4.   Regarding claims 4 and 15, Vanghi teaches using acknowledgement messages to confirm

the sender that the information sent was received correctly (acknowledgements for the entire

message/segment of frames 1:40-54 and inherently portion of the system on Fig. 1 to generate

them).

5.   Regarding claims 9 and 10, Vanghi teaches correlating the power levels to the frame

error rates and adjusting the power level to achieve the appropriate FER (nonlinear relations

between power control and FER and adjusting power control to achieve desired FER 4:57-5:5).

6.   Regarding claim 18, Vanghi teaches the second FER lover than the first FER (reducing

FER/MER for k message compared with it value for k-1 message as shown on 8:1-17).

7.   Regarding claim 12, Vanghi teaches;

        Determining whether one or more second error conditions occurred (identifying the failed

frames of the next transmission, as disclosed in the rejection of claims 1,11 and 13 above);

        If at least one second condition occurred, transmitting a third block of third frames at a

third power level to target a second frame error rate (increasing the power level of the

transmission station another step 3:10-25, similar to the power adjustment disclosed in the

rejection of claims 1, 11 and 13 above for transmitting the next data block), wherein the third

frame contains at least one second frame associated with one or more second error conditions

(retransmitting the failed frames of second data block, as disclosed in the rejection of claims 1,

11 and 13 above, with the data of the next data block), and

        If no second condition occurred, transmitting a third block of third frame at the first

power level (keeping the first level of the power transmission for the next data block in absence

of errors, as disclosed in the rejection of claims 1, 11 and 13 above).

8.   Claims 5 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanghi
in view of Malkamaki.

Vanghi in view of Malkamaki teaches all the limitations of claims 1, 3, 4, 13 and 15 (see claims
rejection above).

Vanghi in view of Malkamaki does not teach the acknowledged segments as TCP segments.

It would have been obvious to one of ordinary skill in the art at the time the invention was made
to add the acknowledged segments as TCP segments to the system of Vanghi in view of
Malkamaki to improve the system by utilizing widely used TCP standard, making the system
compatible with numerous TCP operated devices.

Response to Arguments

9.   Applicant's arguments filed 06/14/06 have been fully considered but they are not
persuasive.

On page 6 of the Response, Applicant argues that resetting power level to said first power level
is supported by the disclosure.

Examiner respectfully disagrees.

Disclosure does not teach to reset power level to said first power level if a block is transmitted
correctly and Applicant's arguments to derive the resetting step from the flow chart Fig. 7 are not
persuasive.

On page 7 of the Response, Applicant argues that Vanghi teaches collections of frames

comprising different number of frames and therefore different from the fixed number of frames

in the Application.

Examiner respectfully disagrees.

Applicant's arguments, directed to the number of frames in the block, are irrelevant because are

directed to the unclaimed subject matter.

On page 8 of the Response, Applicant argues that Vanghi and Malkamaki teachings are not

combinable.

Examiner respectfully disagrees.

Both teachings are directed to wireless systems for transmission and retransmission of data
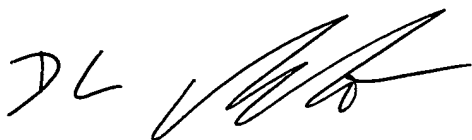
blocks, comprising several portions.

It would have been obvious to one of ordinary skill in the art at the time the invention was made

to combine the incorrectly transmitted frames with subsequent incoming signal frames of

Malkamaki with the system of Vanghi to improve transmission speed of the system, as

combining new and failed frames in one block will reduce the system delay by reducing

overhead in transmission and acknowledgement of these frames.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Doris To can be reached on (571) 272-7529. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dmitry Levitan
Examiner
Art Unit 2616